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Applicant: Gabbard et al.

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Title: SHINGLE PANEL

TO THE COMMISSIONER OF PATENTS:

This paper is responsive to the Office Action mailed December 29, 2005.

AMENDMENT AND RESPONSE

Claims begin on page 2 of this paper.

Remarks begin on page 11 of this paper.

IN THE CLAIMS:

1. (Currently Amended) A shingle panel system, comprising:

first, second, and third shingle assemblies each having

a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge;

at least one backing affixed to the shingle, the backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge; and wherein:

the first edge of the backing is substantially aligned with the first edge of the shingle;

the second edge of the backing is offset the second edge of the shingle;

the third edge of the backing is offset the third edge of the shingle; and

the fourth edge of the backing is offset the fourth edge of the shingle;

wherein the first shingle panel affixed to a building exterior along the first edge thereof, the second shingle affixed to the building exterior along the first edge thereof having the second shingle panel positioned relative the first shingle panel such that the first edge of the first and second shingle panels are substantially aligned, the third edge of a second shingle panel substantially abutting the fourth edge of the first shingle panel, and the offset of the third edge of the second shingle panel interlocks with the offset of the fourth edge of the first shingle panel the third shingle panel is positioned relative the first and second shingle panels such that the second edge of the third shingle panel is aligned with the first edge of the first and second shingle panels such that the second edge of the third

shingle panel overlaps the first edge of the first and second shingle panels substantially to the offset of the backing along the second edge of the third shingle panel; and
wherein the third shingle panel positioned relative the first and second shingle panels such that the second edge of the third shingle panel is aligned with the first edge of the first and second shingle panels such that the second edge of the third shingle panel overlaps the first edge of the first and second shingle panels substantially to the offset of the backing along the second edge of the third shingle panel.

2. (Currently Amended) The shingle panel system of claim 1, wherein the distance between the first and second edges of the backing is less than the distance between the first and second edges of the shingle.

3. (Currently Amended) The shingle panel system of claim 1, wherein the distance between the third and fourth edges of the backing is substantially the same as the distance between the third and fourth edges of the shingle.

4. (Currently Amended) The shingle panel system of claim 1, wherein the backing is affixed to the shingle by glue.

5. (Currently Amended) The shingle panel system of claim 1, wherein the shingle has a thickness and the thickness is tapered from the second edge to the first edge of the shingle.

6. (Currently Amended) The shingle panel system of claim 1, wherein the shingle comprises at least one groove extending substantially between the first edge and second edge of the shingle.

7. (Currently Amended) The shingle panel system of claim 1, wherein the backing comprises at least one breathing groove substantially parallel with the third and fourth edges of the backing.

8. (Currently Amended) The shingle panel system of claim 7, wherein the at least one breathing groove extends from the first edge of the backing.

9. (Currently Amended) A shingle panel, comprising:

a plurality of shingles, each shingle having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, the plurality of shingles substantially adjacent each other such that the first edge of each shingle is substantially aligned with the first edge of the other shingles and the third edge of each shingle is substantially abutting the fourth edge of each adjacent shingle; at least one backing affixed to the plurality of shingles, the backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge; and wherein:

the first edge of the backing is substantially aligned with the first edge of the plurality of shingles;

the second edge of the backing is offset the second edge of the plurality of shingles by a first offset distance;

the third edge of the backing is offset the third edge of the plurality of shingles by a second offset distance;

the fourth edge of the backing is offset the fourth edge of the plurality of shingles by a third offset distance;

wherein the distance between the third and fourth edges of the backing is substantially the same as the distance between the third and fourth edges of at least one of the plurality of shingles; and
wherein the first offset distance is greater than the second and third offset distances.

10. (Original) The shingle panel of claim 9, wherein the distance between the first and second edges of the backing is less than the distance between the first and second edges of at least one of the plurality of shingles.

11. (Original) The shingle panel of claim 9, wherein the distance between the third and fourth edges of the backing is substantially the same as the distance between the third and fourth edges of at least one of the plurality of shingles.

12. (Original) The shingle panel of claim 9, wherein the backing is affixed to the shingle by glue.

13. (Original) The shingle panel of claim 9, wherein at least one of the plurality of shingles has a thickness and the thickness is tapered from the second edge to the first edge of the shingle.

14. (Original) The shingle panel of claim 9, wherein at least one of the plurality of shingles comprises at least one groove extending substantially between the first edge and the second edge of the shingle.

15. (Original) The shingle panel of claim 9, wherein the backing comprises at least one breathing groove substantially parallel with the third and fourth edges of the backing.

16. (Original) The shingle panel of claim 15, wherein the at least one breathing groove extends from the first edge of the backing.

17. (Withdrawn) A method for manufacturing a shingle panel, comprising:

affixing a first backing to a first side of at least one shingle board having first and second sides, wherein the first side of the shingle board is substantially opposite the second side of the shingle board;

affixing a second backing to the second side of the shingle board;

separating the shingle board between the affixed first and second backings to produce at least one shingle panel comprising at least one shingle associated with the first or second backing, the shingle having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, the associated first or second backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, and wherein the first edge of the associated first or second backing is substantially aligned with the first edge of the shingle;

producing an offset in the second edge of the first or second backing relative to the second edge of the shingle; and

producing an offset in at least one of the third and fourth edges of the first or second backing.

18. (Withdrawn) The method of claim 17, wherein the distance between the first and second edges of at least one of the first and second backings is less than the distance between the first and second edges of the shingle.

19. (Withdrawn) The method of claim 17, wherein the distance between the third and fourth edges of at least one of the first and second backings is less than the distance between the third and fourth edges of the shingle.

20. (Withdrawn) The method of claim 17, wherein the first and second backings are affixed to the shingle by glue.

21. (Withdrawn) The method of claim 20, wherein the first and second backings are compression pressed to the shingle.

22. (Withdrawn) The method of claim 21, wherein the first and second backings compression pressed to the shingle are allowed to cure for a predetermined period of time.

23. (Withdrawn) The method of claim 17, wherein:

the shingle has a thickness; and

if a tapered shingle panel is desired, separating the shingle board between the affixed first and second backings at an angle relative to the first and second backings.

24. (Withdrawn) The method of claim 17, comprising if a breathing groove is desired, producing at least one breathing groove substantially parallel with the third and fourth edges of the backing in at least one of the first and second backings.

25. (Withdrawn) The method of claim 24, wherein the at least one breathing groove extends from the first edge of the backing.

26. (Withdrawn) The method of claim 17, wherein producing an offset in at least one of the third and fourth edges of the associated first or second backing comprises:

producing an offset in the third edge of the first backing relative to the third edge of the shingle; and

producing an offset in the fourth edge of the first backing relative to the fourth edge of the shingle.

27. (Original) A method for installing a shingle panel system on a building exterior, comprising:

affixing a first shingle panel to the building exterior, the first shingle panel comprising at least one shingle having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, a backing affixed to the shingle, the backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, and wherein the first edge of the backing is substantially aligned with the first edge of the shingle, the second edge of the backing is offset the second edge of the shingle, the third edge of the backing is offset the third edge of the shingle and the fourth edge of the backing is offset the fourth edge of the shingle;

affixing a second shingle panel to the building exterior, the second shingle panel comprising at least one shingle having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, a backing affixed to the shingle, the backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, and wherein the first edge of the backing is substantially aligned with the first edge of the shingle, the second edge of the backing is offset the second edge of the shingle, the third edge of the backing is offset the third edge of the shingle and the fourth edge of the backing is offset the fourth edge of the shingle; and

wherein

the first shingle panel is affixed to the building exterior along the first edge of the shingle of the first shingle panel;

the second shingle panel is affixed to the building exterior along the first edge of the shingle of the second shingle panel; and

the second shingle panel is positioned relative the first shingle panel such that the first edge of the first and second shingle panels are substantially aligned, the third edge of a second shingle panel substantially abuts the fourth edge of the first shingle panel, and the offset of the third edge of the second shingle panel interlocks with the offset of the fourth edge of the first shingle panel.

28. (Original) The method of claim 27, further comprising:

affixing a third shingle panel to the building exterior, the third shingle panel comprising at least one shingle having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, a backing affixed to the shingle, the backing having a first edge, a second edge, a third edge and a fourth edge, wherein the first edge is substantially opposite the second edge and the third edge is substantially opposite the fourth edge, and wherein the first edge of the backing is substantially aligned with the first edge of the shingle, the second edge of the backing is offset the second edge of the shingle, the third edge of the backing is offset the third edge of the shingle and the fourth edge of the backing is offset the fourth edge of the shingle; and

wherein

the third shingle panel is affixed to the building exterior along the first edge of the shingle of the third shingle panel; and

the third shingle panel is positioned relative the first and second shingle panels such that the second edge of the third shingle panel is aligned with the first edge of the first and second shingle panels such that the second edge of the third shingle panel overlaps the first edge of the first and second shingle panels substantially to the offset of the backing along the second edge of the third shingle panel.

REMARKS

The Office Action mailed December 29, 2005 has been received and reviewed. Claims 1-16, 27, and 28 are pending. Claims 17-26 are withdrawn.

Claims 1-16, 27, and 28 stand rejected under either §102 or §103 in view of U.S. Patents 3,095,671 to Fink, 4,651,492 to Mendez, and 1,534,165 to Cumfer. Applicant respectfully asserts that anticipation and obviousness with respect to the amended claims has not been established.

In order to establish anticipation, each and every element of the claimed invention must be found in a single prior art reference. Fink, Mendez and Cumfer fail to disclose the shingle system recited in claims 1, 9, 27, and 28. With respect to claims 1, 27, and 28, Fink teaches a shingle assembly wherein both backing and shingle overlap the shingle assembly below. The shingle system recited in claim 1 requires first, second, and third shingles affixed to a building such that the third edge of a second shingle panel substantially abutting the fourth edge of the first shingle panel, and the offset of the third edge of the second shingle panel interlocks with the offset of the fourth edge of the first shingle panel the third shingle panel is positioned relative the first and second shingle panels such that the second edge of the third shingle panel is aligned with the first edge of the first and second shingle panels such that the second edge of the third shingle panel overlaps the first edge of the first and second shingle panels substantially to the offset of the backing along the second edge of the third shingle panel and that the third shingle panel positioned relative the first and second shingle panels such that the second edge of the third shingle panel is aligned with the first edge of the first and second shingle panels such that the second edge of the third shingle panel overlaps the first edge of the first and second shingle panels substantially to the offset of the backing along the second edge of the third shingle panel.

None of the other references recite such a shingle system or shingle panels as claimed. Fink fails to render the noted limitations obvious. Fink teaches an overlapping arrangement of both an insulation panel and shingles over another shingle/insulation panel assembly. Fink teaches positioning a nail strip 22 abutting the insulation panel 30 such that the amount of

overlap is reduced to the point of being useless for interlocking. Fink further teaches that a nail must pass through the nail strip 22 into a shingle 11 beneath the nail strip 22. Figure 7. Fink therefore teaches away from the overlapping arrangement claimed. Prior interlocking systems fail to achieve the benefits of the novel panel claimed and fail to teach or suggest the aligned and offset edges as recited in the claims.

With respect to claim 9, Fink fails to teach offsets wherein a first offset distance, as defined in the claims, is greater than second and third offset distances as defined in the claims. In the device of Fink, the offset along the lower edge of the backing and shingle is very small due to the nail strip 22. Figure 2. Fink fails to render the claimed configuration obvious. Fink teaches away from the claimed invention inasmuch as the nail strip must be positioned over the top edge of the shingle panel below and therefore cannot be offset by an amount greater than the amount the insulation panel 30 is offset laterally from the shingles 11.

Claims 2-8 and 10-16 are dependent on allowable claims 1 and 9, respectively, and are therefore allowable for at least the reasons discussed hereinabove.

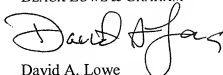
With respect to claim 27 and 28, there is no teaching or suggestion in the cited references to perform the method recited to form the claimed shingle panel. In order to render the claimed invention obvious, all of the claim limitations must be taught by one or more prior art references and there must be some teaching or suggestion to combine the references to achieve the claimed invention. In the present case, there simply is no indication in any of the references to perform all of the claimed steps, whether alone or in combination.

CONCLUSION

Claims 1-16, 27 and 28 are believed to be in condition for allowance. The Examiner is invited to call the undersigned to discuss issues that may be resolved by a telephone conference.

Respectfully submitted,

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